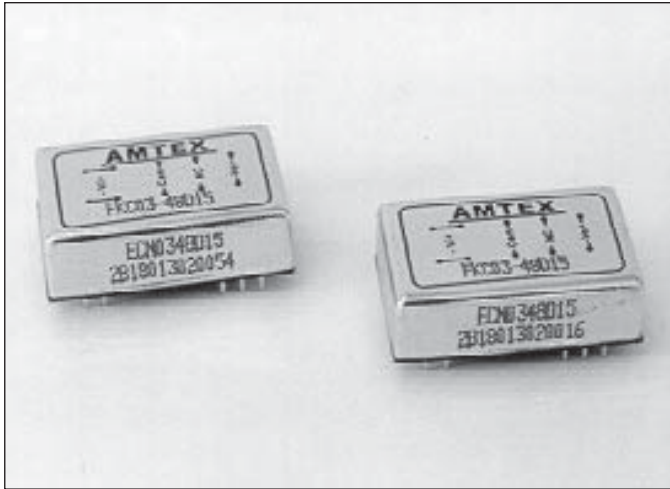


# FKC05 SERIES

## DC/DC Single & Dual Converters: 5 Watts



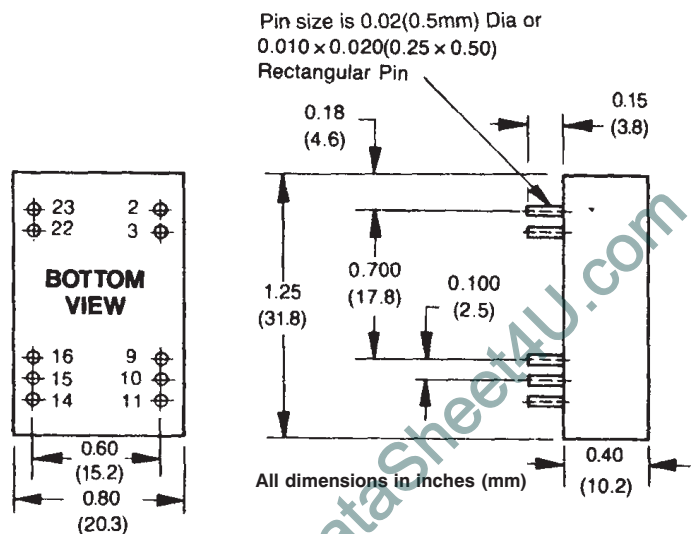
### Features

- Wide input 2:1 range and 4:1 option - **W**
- Standard 24 PIN or SMD type option - **SMD**
- Nickel-coated copper shield
- EMC: EN55022. Immunity: EN61000-4
- Isolation: 1600V
- Low ripple and noise
- Safety approvals to EN60950, UL1950
- High operating temperature 85°C
- Wide operating temperature option -40°C to +85°C
- High MTBF 3,165,000 hours
- Over current protection
- For wide input option add **-W** to model

### Specifications

<b>INPUT VOLTAGE:</b>	12VDC (9 - 18) 24VDC (18 - 36) <b>FKC05-W</b> (9-36) 48VDC (36 - 75), <b>FKC05-W</b> (18-75)
<b>INPUT FILTER:</b>	Pi type
<b>INPUT SURGE VOLTAGE:</b> (100ms max.)	12V/36V, 24V/50V, 48V/100V
<b>EFFICIENCY:</b>	Model dependent 76~84%
<b>START UP TIME:</b>	600ms typical with constant resistor load
<b>VOLTAGE ACCURACY:</b>	±2%
<b>VOLTAGE ADJUSTMENT:</b>	N/A
<b>MINIMUM LOAD:</b>	0%. (FKC05-W requires 10%)
<b>LINE REGULATION:</b>	±0.02% at constant 100% load
<b>LOAD REGULATION:</b>	±0.5% Single, ±1% Dual, 25%~100% load
<b>RIPPLE &amp; NOISE:</b>	50mV p-p 20MHz bandwidth
<b>OVERLOAD PROTECTION:</b>	Continuous, auto recovery. Hiccup mode
<b>TRANSIENT RESPONSE:</b>	Recovery time 200µS 25% load step
<b>ISOLATION VOLTAGE:</b>	1600 VDC
<b>SWITCHING FREQUENCY:</b>	300KHz typical
<b>SAFETY STANDARD:</b>	IEC950, UL1950, EN60950
<b>CASE MATERIAL:</b>	Nickel-coated copper shield
<b>OPERATING TEMP:</b>	-25°C to +70°C non derating -40°C to +85°C non derating <b>-M1 option</b> -40°C to +85°C with derating <b>-M2 option</b>
<b>HUMIDITY:</b>	5% to 95% RH
<b>COOLING:</b>	Free air convection
<b>SHOCK &amp; VIBRATION:</b>	MIL-STD-810D
<b>EMC:</b>	Meets EN55022A
<b>IMMUNITY:</b>	EN61000-4-2, -3, -4, -5, -6
<b>CAPACITOR LOADING:</b>	Model dependent, consult office
<b>DIMENSIONS &amp; WEIGHT:</b>	31.8 x 20.3 x 10.2mm 18g

Model	Input V	Output V A	Power W
FKC05 - 12S33	12V	3.3V 1000mA	5.0W
FKC05 - 12S05	12V	5V 1000mA	5.0W
FKC05 - 12S12	12V	12V 470mA	5.0W
FKC05 - 12S15	12V	15V 400mA	5.0W
FKC05 - 12D05	12V	±5V 500mA	5.0W
FKC05 - 12D12	12V	±12V 230mA	5.0W
FKC05 - 12D15	12V	±15V 190mA	5.0W
FKC05 - 24S33	24V	3.3V 1000mA	5.0W
FKC05 - 24S05	24V	5V 1000mA	5.0W
FKC05 - 24S12	24V	12V 470mA	5.0W
FKC05 - 24S15	24V	15V 400mA	5.0W
FKC05 - 24D05	24V	±5V 500mA	5.0W
FKC05 - 24D12	24V	±12V 230mA	5.0W
FKC05 - 24D15	24V	±15V 190mA	5.0W
FKC05 - 48S33	48V	3.3V 1000mA	5.0W
FKC05 - 48S05	48V	5V 1000mA	5.0W
FKC05 - 48S12	48V	12V 470mA	5.0W
FKC05 - 48S15	48V	15V 400mA	5.0W
FKC05 - 48D05	48V	±5V 500mA	5.0W
FKC05 - 48D12	48V	±12V 230mA	5.0W
FKC05 - 48D15	48V	±15V 190mA	5.0W



Pin#	Single	Dual	Pin#	Single	Dual
2	-Vin	-Vin	14	+Vout	+Vout
3	-Vin	-Vin	15	NC	NC
9	NC	Common	16	-Vout	Common
10	NC	NC	22	+Vin	+Vin
11	NC	-Vout	23	+Vin	+Vin

# FDC05 SERIES

## DC/DC Single & Dual Converters: 5 Watts



### Features

- Wide input 2:1 range standard model
- 4.1 input option **FDC05-W**
- Single and Dual output options
- Nickel coated copper shield
- EMC EN55022. Immunity EN61000-4
- Isolation 1600 V
- Low ripple and noise
- Safety approvals to EN60950, UL1950
- High operating temperature 70°C with no derating
- -40°C to +85°C non derating - **M1 option**
- -40°C to +85°C with derating - **M2 option**
- High MTBF 3,145,000 hours
- Overcurrent protection

### Specifications

<b>INPUT VOLTAGE:</b>	12VDC (9 - 18) 24VDC (18 - 36) <b>FDC05-W (9~36)</b> 48VDC (36 - 75) <b>FDC05-W (18~75)</b>
<b>INPUT FILTER:</b>	Pi type
<b>INPUT SURGE VOLTAGE:</b>	12V/36V, 24V/50V, 48V/100V (100ms max)
<b>EFFICIENCY:</b>	Model dependent 73~82%
<b>START UP TIME:</b>	600ms typical with constant resistor load
<b>VOLTAGE ACCURACY:</b>	±2%
<b>VOLTAGE ADJUSTMENT:</b>	N/A
<b>MINIMUM LOAD:</b>	0%. (FDC05 W requires 10%)
<b>LINE REGULATION:</b>	±0.2% at constant 100% load
<b>LOAD REGULATION:</b>	±0.2% Single. ±1% Dual, 25%~100% load
<b>RIPPLE &amp; NOISE:</b>	50mV p-p 20MHz bandwidth
<b>OVERLOAD PROTECT:</b>	Continuous, auto recovery. Hiccup mode
<b>TRANSIENT RESPONSE:</b>	Recovery time 200µS 25% load stop
<b>ISOLATION VOLTAGE:</b>	1600 VDC
<b>SWITCHING FREQUENCY:</b>	300KHz typical (200KHz FDC05-W)
<b>SAFETY STANDARD:</b>	IEC950, UL1950, EN60950
<b>CASE MATERIAL:</b>	Nickel coated copper shield
<b>OPERATING TEMP:</b>	-25°C to +70°C non derating -40°C to +85°C non derating - M1 option -40°C to +85°C with derating - M2 option
<b>HUMIDITY:</b>	5% to 95% RH
<b>COOLING:</b>	Free air convection
<b>SHOCK &amp; VIBRATION:</b>	MIL-STF-810D
<b>EMC:</b>	Meets EN55022 A
<b>IMMUNITY:</b>	EN61000-4-2, -3, -4, -5, -6
<b>CAPACITOR LOADING:</b>	Model dependent, consult office
<b>DIMENSIONS &amp; WEIGHT:</b>	50.8 x 25.4 x 10.2mm 27g
<b>REMOTE ON/OFF:</b>	Option: Consult office for details -P Positive Logic Control -N Negative Logic Control

Model	Input V	Output		Power W
		V	A	
FDC05 - 12S33	12V	3.3V	1000mA	5.0W
FDC05 - 12S05	12V	5V	1000mA	5.0W
FDC05 - 12S12	12V	12V	470mA	5.0W
FDC05 - 12S15	12V	15V	400mA	5.0W
FDC05 - 12D05	12V	±5V	500mA	5.0W
FDC05 - 12D12	12V	±12V	230mA	5.0W
FDC05 - 12D15	12V	±15V	190mA	5.0W
FDC05 - 24S33	24V	3.3V	1000mA	5.0W
FDC05 - 24S05	24V	5V	1000mA	5.0W
FDC05 - 24S12	24V	12V	470mA	5.0W
FDC05 - 24S15	24V	15V	400mA	5.0W
FDC05 - 12D05	24V	±5V	500mA	5.0W
FDC05 - 24D12	24V	±12V	230mA	5.0W
FDC05 - 24D15	24V	±15V	190mA	5.0W
FDC05 - 48S33	48V	3.3V	1000mA	5.0W
FDC05 - 48S05	48V	5V	1000mA	5.0W
FDC05 - 48S12	48V	12V	470mA	5.0W
FDC05 - 48S15	48V	15V	400mA	5.0W
FDC05 - 48D05	48V	±5V	500mA	5.0W
FDC05 - 48D12	48V	±12V	230mA	5.0W
FDC05 - 48D15	48V	±15V	190mA	5.0W

Pin#	Single	Dual	Pin#	Single	Dual
1	+Vin	+Vin	4	No pin	Common
2	-Vin	-Vin	5	-Vout	-Vout
3	+Vout	+Vout	6	CTRL - option	CTRL - option

